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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/758,267
Filing Date: January 12, 2001
Appellant(s): FACCINN ET AL.

Bradley C. Wright
For Appellant

EXAMINER'S ANSWER

This is in response to the corrected appeal brief filed 10-8-2008 appealing from the Office action mailed 1-12-2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

WO 97/26739	Kari	7-1997
US 6,463,275	Deakin	10-2002
US 6,496,690	Cobo	12/2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

First Set of Rejection

Claim Rejections - 35 USC § 102 (b)

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 38 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Kari (WO 97/26739).

Regarding claim 38, Kari discloses a network element for use in coordinating charging information (see FIG. 1, SGSN or GGSN), the network element being configured to:

create call records (see page 9, line 15-20; collects charging information) and a charging identification (see col. 9, line 15-34; IMSI ID of MS) for use in one of an application layer network (see FIG. 1, a combined system of near end MS, MSC, GGSN, SGSN, HLR Internet and far end MS, which provides a application layer networking for user equipment) or a transport layer network for a communication network (see FIG. 1, a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking) having a billing system (see FIG. 1, BC, Billing Center), wherein a first connection is established in the application layer network by a user equipment (see FIG 1, setting up a connection/call by the near end MS, at the application layer, via MSC to communicate with far end MS at the application layer in the GSm/GPRS network; see page 5, line 1-29) using a call control protocol (see page 5, line 1 to page 6, line 30; establishing connection according to GSM/GPRS PDP context call controlling/managing rule/protocol) and a second connection is established in the transport layer network by said user equipment (see FIG. 1, once near end MS set up the application layer, a transport layer must be also set up for transport connection by the near end MS to communicate with far end MS; see page 5, lines 1-29);

include the charging identification the call records thereof (see page 9, lines 14--35; note that charging information include mobile IMSI ID) and

send said call records to said billing system (see FIG. 1, charging information are sent to BC), for sending said charging identification (see FIG. 1, sending IMSI ID of charging information) from said network element (see FIG. 1, GGSN or SGSN) so as to be used by a further network element (see FIG. 1, BGGSN) in the other one of the application layer network or the transport layer network (see page 9-10, line 30 to page 11, line 10; see FIG. 1, application layer or Transport Layer GPRS network), to enable charging information for the elements to be coordinated (see page 9-10, line 30 to page 11, line 10; a combined system of BGGSN and BC coordinates/associates the /charging information from GGSN and SGSN nodes);

Regarding claim 39, Kari discloses a network element for use in coordinating charging information (see FIG. 1, BGGSN), the network element being configured for use in one of one of the application layer network (see FIG. 1, a combined system of near end MS, MSC, GGSN, SGSN, HLR Internet and far end MS, which provides a application layer networking for user equipment) or transport layer network (see FIG. 1, a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking) having a billing system (see FIG. 1, BC, Billing Center) for the communication network wherein a first connection is established in the application layer network by a user equipment (see FIG 1, setting up a connection/call by the near end MS at the application layer, via MSC, to communicate with far end MS application layer in the GSm/GPRS network; see page 5, line 1-29) using a call control protocol and a second connection is established in the transport layer network by said user equipment (see FIG. 1, once the application layer is set up a transport layer must be set up for transport connection by the near end MS to communicate with far end MS; see page 5, lines 1-29), said network element being configured to:

create call records (see page 9, line 15-20; collects charging information) for said second connection in said transport layer network (see col. 4, lines 19-50; note that charging information is generated at BGGSN in a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking (see FIG. 1));

send said call records to said billing system (see FIG. 1, BC, Billing Center; sends charging information to BS; see page 9, line 5 to page 11, line 5), and

receives said charging identification from a further network (see FIG. 1, SGSN/GGSN) operable in the other one of the application layer network or transport layer network (see page 9-10, line 30 to page 11, line 10; see FIG. 1, application layer or Transport Layer GPRS network), to enable charging information for the elements to be coordinated (see page 9-10, line 30 to page 11, line 10; a combined system of BGGSN and BC coordinates/associates the /charging information from GGSN and SGSN nodes).

Second Set of Rejection

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deakin (US006463275B1) and further in view of Cobo (U.S. 6,496,690).

Regarding claim 38, Deakin discloses a network element for use in coordinating charging information (see FIG. 1, SGSN/GGSN; FIG. 2, NE 1 or NE 2), the network element being configured to:

create call records (see col. 3, line 30-35; creating/generating call detailed records) and a charging identification (see col. 4, lines 19-50; BCI, Bill Class Identifier; note that call records and BCI is generated at the NEs when the connection is requested/initiated for billing/charging) for use in one of an application layer network (see FIG. 1, a combined system of near end TE, MSC/VLR, HLR, and far end TE, which provides a application layer networking for user equipment) or a transport layer network for a communication network (see FIG. 1, a combined system of near end TE, BSS, SGSN, GGSN, PDN network, and far end TE which provides transport layer networking) having a billing system (see FIG. 1, Charging gateway function; or see FIG. 2, a combined of Billing systems and charging gateway), wherein a first connection is established in the application layer network by a user equipment (see FIG 1, setting up a connection/call by the near end TE at the application layer, via MSC to HLR, to communicate with far end TE application layer) and a second connection is established in the transport layer network (see FIG. 1, once the application layer is set up, a transport layer must be also set up for transport connection by the near end TE to communicate with far end TE; see FIG. 7, subscriber initiates request service for connections; see col. 4, lines 50-54);

include the charging identification the call records thereof (see col. 3, lines 33-36; note that Call Detailed Records, CDR includes BCI) and

send said call records to said billing system (see col. 3, lines 25-37; note that CDR with BCI is send from NE to a combined charging and billing system), to enable charging information

for the elements to be coordinated (see FIG. 7, the combined charging and billing system coordinates/associates the billing/charging information by using BCI included in CDR of the nodes; see col. 3, line 30-64; see col. 4, lines 14-55).

Deakin does not explicitly disclose "a call control protocol, means for sending said charging identification from said network element so as to be used by the further network element".

However, a call control protocol is well known in the art in order to establish an end-to-end call. In particular, Cobo teaches a call control protocol (see col. 4, line 35-65; see col. 6, line 30-35; see col. 7, line 43-50; establishing connection according to GSM/GPRS PDP context call controlling/managing rule/protocol), sending said charging identification (see FIG. 4, subsequent create PDP context request 83; see FIG. 5 and 6B, Charging ID of the PDP context message 70 and 83) from said network element (see FIG. 4, SGSN 12) so as to be used by the further network element (see FIG. 4, GGSN 25; see col. 3, line 55-65; see col. 7, lines 43-59; 64-67) in the other one of the application layer network or the transport layer network (see FIG. 1, application layer or Transport Layer GPRS network), to enable charging information for elements to be coordinated (see col. 7, line 46 to col. 9, line 65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a call control send and sending charging ID to GGSN node, as taught by Cobo in the system of Deakin, so that it would provide a standardized method of providing a near real time account balance for subscriber's account and stopping the service when the balance reaches to zero; see Cobo col. 2, line 5-14, 15-56; see col. 3, lines 34-39.

Regarding claim 39, Deakin discloses a network element for use in coordinating charging information (see FIG. 1, SGSN/GGSN; FIG. 2, NE 1 or NE 2), the network element being configured for use in one of one of the application layer network (see FIG. 1, a combined system of near end TE, MSC/VLR, HLR, and far end TE, which provides a application layer networking for user equipment) or transport layer network (see FIG. 1, a combined system of near end TE, BSS, SGSN, GGSN, PDN network, and the transport layer of far end TE which provides transport layer networking) having a billing system (see FIG. 1, Charging gateway function; or see FIG. 2, a combined system of Billing systems and charging gateway) for the communication network wherein a first connection is established in the application layer network (see FIG 1, setting up a connection/call by the near end TE at the application layer, via MSC to HLR, to communicate with far end TE application layer) using a call control protocol and a second connection is established in the transport layer network (see FIG. 1, once the application layer is set up, a transport layer must be also set up for transport connection by the near end TE to communicate with far end TE; see FIG. 7, subscriber initiates request service for connections; see col. 4, lines 50-54), said network element being configured to:

create call records (see col. 3, lines 30-36; creating/generating Call Detailed Records) for said second connection in said transport layer network (see col. 4, lines 19-50; note that call records is generated at the NEs when the connection is requested/initiated for billing/charging in a combined system of near end TE, BSS, SGSN, GGSN, PDN network, and the transport layer of far end TE which provides transport layer networking (see FIG. 1));

send said call records to said billing system (see col. 3, lines 25-37; note that call records are send from NE to Charging gateway so that charging gateway can be used the BCI for

billing), and to enable charging information to be coordinated (see FIG. 7, the charging gateway coordinates/associates the billing/charging information by using CDR of the nodes; see col. 3, line 30-64; see col. 4, lines 14-55).

Deakin does not explicitly disclose "receives said charging identification from a further network".

However, Cobo teaches receives said charging identification (see FIG. 4, receiving subsequent create PDP context request 83; see FIG. 5 and 6B, Charging ID of the PDP context message 70 and 83) from a further network element (see FIG. 4, SGSN 12); see col. 3, line 55-65; see col. 7, lines 43-59; 64-67) operable in the other one of the application layer network or the transport layer network (see FIG. 1, application layer or Transport Layer GPRS network), to enable charging information for elements to be coordinated (see col. 7, line 46 to col. 9, line 65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a receiving charging ID from SGSN node, as taught by Cobo in the system of Deakin, so that it would provide a standardized method of providing a near real time account balance for subscriber's account and stopping the service when the balance reaches to zero; see Cobo col. 2, line 5-14, 15-56; see col. 3, lines 34-39.

(10) Response to Argument

In the First Set of Rejection

I. Application Layer and Transport Layer Network and Charging Identification

I (A) Regarding claims 38 and 39, the appellant argued that, "… the anticipation rejection fails to properly interpret and consider the application layer network related

features…the rejection fails to show Kari includes the recited features related to an charging identification send from one of the application layer network and transport layer network to the other… IMSI identifier is not created …IMSI is not used to coordinate charging information between an application layer network and a transport layer network...BGGSN in Kari does not perform any coordination of charging information for different network in Kari…" in page 4-8.

I (A) In response to appellant's argument, **the examiner respectfully disagrees** that the argument above.

Regarding claim 38, Kari discloses a network element for use in coordinating charging information (**see FIG. 1, SGSN or GGSN**), the network element being configured to:

create call records (see page 9, line 15-20; collects charging information) and a charging identification (**see col. 9, line 15-34; IMSI ID of MS**) for use in one of an application layer network (**see FIG. 1, a combined system of near end MS, MSC, GGSN, SGSN, HLR Internet and far end MS, which provides a application layer networking for user equipment**) or a transport layer network for a communication network (**see FIG. 1, a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking**) having a billing system (see FIG. 1, BC, Billing Center), wherein a first connection is established in the application layer network by a user equipment (**see FIG 1, setting up a connection/call by the near end MS, at the application layer, via MSC to communicate with far end MS at the application layer in the GSm/GPRS network; see page 5, line 1-29**) using a call control protocol (see page 5, line 1 to page 6, line 30; establishing connection according to GSM/GPRS PDP context call controlling/managing rule/protocol) and a second connection is established in the transport layer network by said user

equipment (see FIG. 1, once near end MS set up the application layer, a transport layer must be also set up for transport connection by the near end MS to communicate with far end MS; see page 5, lines 1-29); and

send said call records to said billing system (**see FIG. 1, charging information are sent to BC**), for sending said charging identification (**see FIG. 1, sending IMSI ID of charging information**) from said network element (**see FIG. 1, GGSN or SGSN)** so as to be used by a further network element (**see FIG. 1, BGGSN**) in the other one of the application layer network or the transport layer network (**see page 9-10, line 30 to page 11, line 10; see FIG. 1, application layer or Transport Layer GPRS network**), to enable charging information for the elements to be coordinated (**see page 9-10, line 30 to page 11, line 10; a combined system of BGGSN and BC coordinates/associates the /charging information from GGSN and SGSN nodes**).

Regarding claim 39, Kari discloses Kari discloses a network element for use in coordinating charging information (**see FIG. 1, BGGSN**), the network element being configured for use in one of one of the application layer network (**see FIG. 1, a combined system of near end MS, MSC, GGSN, SGSN, HLR Internet and far end MS, which provides a application layer networking for user equipment**) or transport layer network (**see FIG. 1, a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking**) having a billing system (see FIG. 1, BC, Billing Center) for the communication network wherein a first connection is established in the application layer network by a user equipment (see FIG 1, setting up a connection/call by the near end MS at the application layer, via MSC, to communicate with far end MS application layer in the

GSm/GPRS network; see page 5, line 1-29) using a call control protocol and a second connection is established in the transport layer network by said user equipment (see FIG. 1, once the application layer is set up a transport layer must be set up for transport connection by the near end MS to communicate with far end MS; see page 5, lines 1-29), said network element being configured to:

create call records (**see page 9, line 15-20; collects charging information**) for said second connection in said transport layer network (**see col. 4, lines 19-50; note that charging information is generated at BGGSN in a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking (see FIG. 1)**).

send said call records to said billing system (**see FIG. 1, BC, Billing Center; sends charging information to BS; see page 9, line 5 to page 11, line 5**), and

receives said charging identification from a further network (**see FIG. 1, SGSN/GGSN**) operable in the other one of the application layer network or transport layer network (**see page 9-10, line 30 to page 11, line 10; see FIG. 1, application layer or Transport Layer GPRS network**), to enable charging information for the elements to be coordinated (**see page 9-10, line 30 to page 11, line 10; a combined system of BGGSN and BC coordinates/associates the /charging information from GGSN and SGSN nodes**).

In view of the above, Kari's IMSI is included in the charging information, and a combined system of BGGSN and coordinates/associates the /charging information from GGSN and SGSN nodes.

Kari discloses in page 9, lines 20-32 as follows:

…transmit the information in data packets corresponds to the protocol (e.g. IP) of the backbone network…The data filed of the data packet may contain t**he charging information in a suitable format**. The data field may contain **subfields which contain the IMSI**, data amount, and the service type… (Emphasis added)

In accordance with above, Kari clearly discloses, *inter alia*, IMSI (i.e. charging ID), which is used as charging information. Thus, it is also clear that IMSI is asserted/created and used as a "charging information ID" at "a combined system of MS, MSC, GGSN, SGSN, HLR, Internet, far-end MS (i.e. application layer network)" or "a combined system of near-end MS, BSC, MSC, SGSN, GGSN, Internet and far-end MS (i.e. transport layer network)".

I (B) Regarding claims 38 and 39, the appellant argued that, "…examiner errs in attempting to support the anticipation rejection by arguing that the "broadly claimed limitation" are insufficient and that there are limitations that are not recited in the rejected claims…it is not appropriate to refuse to consider the application layer network and related features recited in the claims, or to require that claims themselves include the definition of the term…the rejection in approximately attempts to require that claims include further specificity of…transport layer network and the application layer …**The limitation of the preferred embodiments described in the specification indeed should not be read into the claims**…Since the claims recited an application layer network and connection therein…**Kari need not to have the details of the preferred embodiments in Appellant's specification**…" in page 4-6.

I (B) In response to appellant's argument, t**he examiner respectfully disagrees** that the argument above.

Examiner is neither requiring that claims themselves include the definition of the term nor refusing to consider the application layer network and related features recited in the claim. As recited in above response (i), Kari clearly discloses the claimed invention, and it is clear that examiner is considering and addressing every single limitation in the claimed invention. Examiner was simply responding to Appellant arguments which stated that Kari fails to teach specific claim limitation not being claimed by the Appellant, by pointing that such specific limitation (e.g. IP based telephone network or any specific list of network elements/features in the application layer network and transport layer network) are not recited in the claim. It is noted that the features upon which appellant relies (i.e., "**any specific list of network elements/features" in the application layer network and transport layer network or IP based telephony network**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Since the appellant claimed invention does not recite any specific limitation, when giving the broadest reasonable interpretation of the claimed invention in light of the specification, Kari clearly anticipates the Appellant invention.

Even Appellant agrees with the examiner on this issue since Appellant admits that "***The limitation of the preferred embodiments described in the specification indeed should not be read into the claims… Kari need not to have the details of the preferred embodiments in Appellant' specification"***. In this case, as admitted and recommended by the appellant, Kari needs not to have details of the preferred embodiments in Appellant specification. Accordingly, Kari clearly anticipates every signal claimed invention recited in the claims.

I (C) Regarding claims 38 and 39, the appellant argued that, "…based on faulty conclusion that an application layer network connection is used "to transmit user traffic" and that a transport layer network connection is used "to transmit signaling/control for transport". There is no support or citation offered for such an interpretation. Furthermore, such interpretation is inconsistent with the original specification and drawings of this application which define the transport layer network, and which also define the application layer network (as part of the architecture of an IP-based telephony network). **See, for example, page 12, line 5, to page 14, line 5**, of the specification. Thus, an application layer network can provide the same service with different transport layer networks, and with different transport bearers. **The transport layer network and application layer network are thus defined to be independent of each other, with each network comprising different network elements…There is no IP-based telephony network and no application layer network in Kari…The billing done in Kari occurs entirely within the transport layer network**…" in page 6-7.

I (C) In response to appellant's argument, t**he examiner respectfully disagrees** that the argument above.

As set forth in response (ii), both examiner and Appellant agrees that "application layer and transport layer" should be given the broadest reasonable interpretation in light of the specification since "***the limitation of the preferred embodiments described in the specification indeed should not be read into the claims" and "Kari need <u>not</u> to have the details of the preferred embodiments in Appellant' specification".***

Accordingly examiner has reasonably interpreted an application layer network as "**FIG. 1, a combined system of near end MS, MSC, GGSN, SGSN, HLR Internet and far end MS, which provides a application layer networking for user equipment**" and a transport layer network "**FIG. 1, a combined system of near end MS, BSC, MSC, SGSN, GGSN, Internet, and far end MS which provides transport layer networking**".

Moreover, interpretation set forth above is consistent with the appellant own specification since the specification "generically" defines "application layer network" and "transport layer network" as set forth below.

"IP telephony network is **sometimes** referred to as "the application layer" (see appellant specification page 12, line 5-6). (Emphasis added)

"IP-based mobile network architecture includes an application layer and a transport layer" (in appellant specification page 13, lines 18-20).

"**In setting up a call in the application layer, the underlying transport layer has to set up** the transport bearer over the radio interface" (see appellant specification page 14, line 1-3). (Emphasis added)

"In UMTS **all-IP network**, when **GPRS**/UMTS is adopted as access/transport network multimedia and voice over IP service, charging will be performed independently at the **GPRS**/UMTS layer and at the application layer" (see appellant specification page 14, lines 9-11). (Emphasis added)

In view of the above, any network that has "application layer" capability is an "application layer" network, and any network that has "transport layer" capability is a "transport layer" network. Once application layer network is set up, transport layer network has to set up. GPRS network is the application layer network.

Identically, Kari discloses also discloses GPRS network 13, 14 and Internet 15 (in FIG. 1), which maps to "application layer network" and "transport layer network" of Appellant

claimed invention. As Appellant stated one application layer network is setup, transport layer network must be set up to transport the application data across the network. Otherwise, it will be impossible to communicate the application data from one point to another in the network.

Thus, examiner's interpretation of the claimed is "consistent" with the appellant specification and the drawings since both Appellant and examiner agree that Kari need not to have the details of the preferred embodiments in Appellant's specification.

In response to appellant's argument that the references fail to show certain features of appellant's invention, it is noted that the features upon which appellant relies (i.e., ***The transport layer network and application layer network are thus defined to be independent of each other, with each network comprising different network elements…There is no IP-based telephony network in Kari…The billing done in Kari occurs entirely within the transport layer network***) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to Kari billing, Kari discloses a billing system (**see FIG. 1, BC, Billing Center**), wherein a first connection is established in the application layer network by a user equipment **(see FIG 1, setting up a connection/call by the near end MS, at the application layer, via MSC to communicate with far end MS at the application layer in the GSM/GPRS network; see page 5, line 1-29**) using a call control protocol (**see page 5, line 1 to page 6, line 30; establishing connection according to GSM/GPRS PDP context call controlling/managing rule/protocol**). Thus, it is clear that Kari's billing done utilizing at the application layer level of application layer network.

In response to Appellant argument, one skilled in the ordinary art in the art of communication would clearly know that GPRS and Internet networks are architected according to the generic Standard of Seven Layer Open System Interface (OSI) layers for a network (See EXHABIT A). Per OSI Standard (ISO/IEC 7498-1) of the record, FIG. 11, section 6.1.2-6.1.6, 7.4.2 and 7.11,

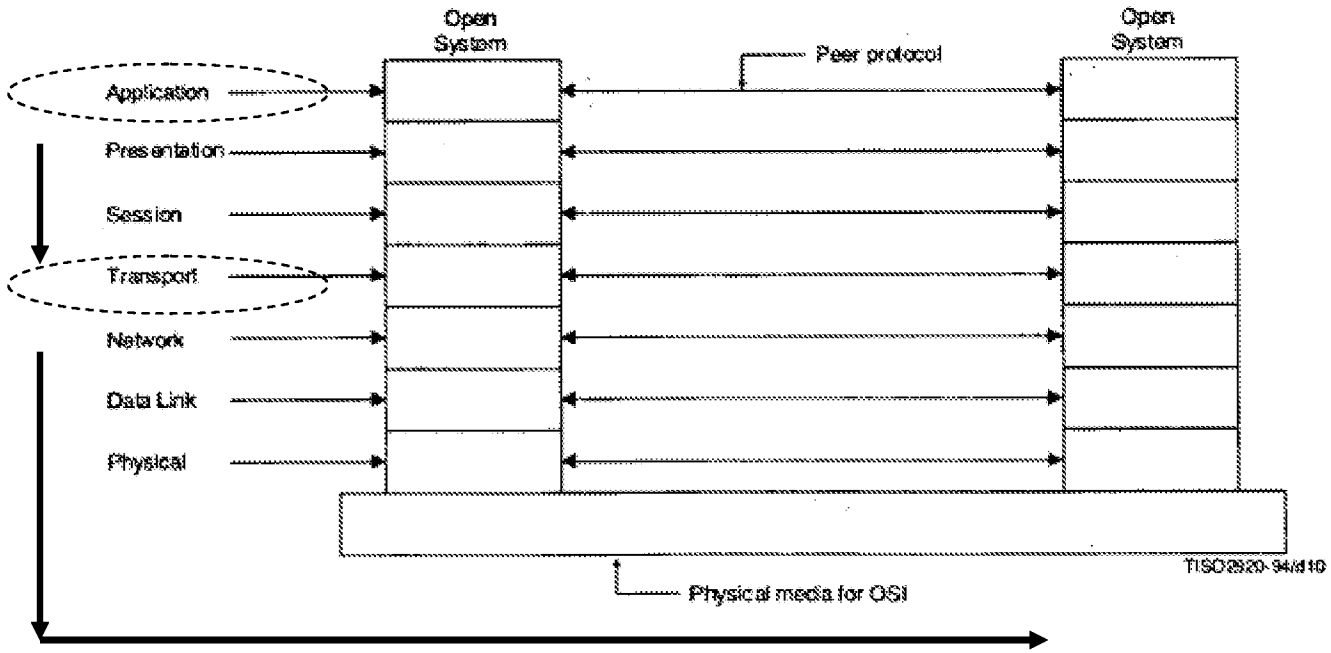

Figure 11 – Seven layer reference model and peer protocols

When applying OSI standard into GPRS and Internet, one skilled in the ordinary art would clearly see that GPRS communication from a mobile to the network, there must be application layer connection (to transmit user traffic) and a transport layer connection (to transmit signaling/control for transport).

Thus, Appellant claimed invention of utilizing "application layer network" and "transport layer network" is a telecommunication standard well established in the art.

In the Second Set of Rejection

II. Same User Equipment established First and second network connections

Regarding claims 38 and 39, the appellant argued that, "… the same user equipment establishes both connections recited in the claims. In Deakin the same user equipment does not established two connections as recited in claims 38 and 39. The rejections itself refers to a "near end TE" and a "far end TE" as two different terminal equipments…" in pages 8-9.

In response to appellant's argument, t**he examiner respectfully disagrees** that the argument above. Deakin discloses a first connection is established in the application layer network by a user equipment (**see FIG 1, setting up a connection/call by the near end TE(see FIG. 1, TE; see FIG. 2, MS) at the application layer, via MSC to HLR, to communicate with far end TE application layer**) and a second connection is established in the transport layer network by said user equipment (**see FIG. 1, once the application layer is set up, a transport layer must be also set up for transport connection by the near end TE to communicate with far end TE; see FIG. 7, subscriber initiates request service for connections; see col. 4, lines 50-54**).

In response to argument, a single user does not establish two connections since there are two equipments. As set froth above, a user equipment (i.e. near end mobile station (MS) or terminal equipment (TE)) is establishing first connection at the application layer and a second connection at the transport layer. Thus, it is clear that a "single" mobile station establishes both an application connection at the application layer and a transport connection at the transport layer, so that the application data traffic (e.g. voice or packets) can be transported. As set forth in

response I (C) once a connection is established in application layer network, another connection has to be set up in the transport layer network in order to transport the data from point of the network to the other.

Clearly, appellant misread the rejection since nowhere in the rejection that states that a two different equipments establishing two different connections.

Moreover, it is well established in the art of GSM/GPRS standards that when a user initiates the call/connection, it is initiating a connection in the application layer by a near end user equipment/station to far end user equipment, which is examiner asserts that a first connection. Once a first connection between application layer set by a near end user equipment/station between two stations is set up, then a near end user equipment/station set up a transport layer for transport layer connection between two stations, otherwise it would very impossible to transmit the call in GPRS standards/architecture (see Deakin col. 1, line 53-62; see col. 3, line 15-20).

III. Application Layer Networks

Regarding claims 38 and 39, the appellant argued that, "… Even though Deakin may have two connections, it does not have one connection in a transport layer network and another in an application layer network…it should be noted that the first reference source for consideration of the meaning of the claim terms is the original specification and drawings of this application…As noted above, the specification of this application described the application layer network as part of the architecture of an IP-based telephony network …" in page 9.

In response to appellant's argument, t**he examiner respectfully disagrees** that the argument above.

Deakin discloses create call records (see col. 3, line 30-35; creating/generating call detailed records) and a charging identification (see col. 4, lines 19-50; BCI, Bill Class Identifier; note that call records and BCI is generated at the NEs when the connection is requested/initiated for billing/charging) for use in one of an application layer network (**see FIG. 1, a combined system of near end TE, MSC/VLR, HLR, and far end TE, which provides a application layer networking for user equipment**) or a transport layer network for a communication network (**see FIG. 1, a combined system of near end TE, BSS, SGSN, GGSN, PDN network, and far end TE which provides transport layer networking**) having a billing system (see FIG. 1, Charging gateway function; or see FIG. 2, a combined of Billing systems and charging gateway), wherein a first connection is established in the application layer network by a user equipment (**see FIG 1, setting up a connection/call by the near end TE at the application layer, via MSC to HLR, to communicate with far end TE application layer**) and a second connection is established in the transport layer network (**see FIG. 1, once the application layer is set up, a transport layer must be also set up for transport connection by the near end TE to communicate with far end TE; see FIG. 7, subscriber initiates request service for connections; see col. 4, lines 50-54**).

In response to arguments "considering Appellant's specification and drawing", please see response set froth in **I (C)** above since Appellant admits on page 6 that "***the limitation of the preferred embodiments described in the specification indeed should not be read into the claims".***

IV. Create Charging Identification

Regarding claims 38 and 39, the appellant argued that, "…There is simply no indication that the GGSN or SGSN in Deakin generates the BCI…" in page 9-10.

In response to appellant's argument, the examiner respectfully disagrees that the argument above.

Deakin discloses creating call records **(see col. 3, line 30-35; creating/generating call detailed records (CDR))** and a charging identification (see col. 4, lines 19-50; BCI, Bill Class Identifier in included in CDR) in a first network element (see FIG. 1, GGSN or SGSN; see FIG. 2, NE2; see col. 3, lines 24-33; note that CDR (with BCI) is generated/created at the NEs when the connection is requested/initiated for billing/charging).

Deakin's col. 3, line 24-26, 34-36 discloses as follows:

The diagram in FIG. 2 shows the basic architecture of a **CDR (Call detail Record) generating network element**…**The network element NE2 passes call detail records (CDRs) with billing class identifiers (BCI) to a charging gateway**, which directs CDRs having appropriate billing class identifiers (in this example with BCIs of 1, 2 and 3) to respective billing systems (shown as A, B and C)…(Emphasis added)

Thus, by viewing FIG. 2 and as set forth above, one can **clearly** see that NE 1 and NE 2 (i.e. GGSN and SGSN) "generate/create" CDR which include BCI.

V. Sending Charging Identification

Regarding claims 38 and 39, the appellant argued that, "…Cobo does not send a charging identifier from an element in one network to an element in the other network...When the applied references are considered as a whole, they do not suggest selectively modifying

Deakin to include a small part of Cobo as proposed in the rejection…the teaching of the Cobo patent is applicable to the GPRS system in Deakin if and only if Deakin does not include a method of providing prepaid subscriber service…Cobo patent teaches an improvement to the Deakin is incorrect…it thus would not obvious to selectively modify the solution set forth in Deakin to include the small portion of the solution set forth in the Cobo patent in the manner evidently proposed in the rejection…" in page 10-12.

In response to appellant's argument, t**he examiner respectfully disagrees** that the argument above.

In response to appellant's argument, t**he examiner respectfully disagrees** that the argument above since the combined system of Deakin and Cobo discloses the claimed invention.

Cobo teaches a call control protocol (**see col. 4, line 35-65; see col. 6, line 30-35; see col. 7, line 43-50; establishing connection according to GSM/GPRS PDP context call controlling/managing rule/protocol**), sending said charging identification (**see FIG. 4, subsequent create PDP context request 83; see FIG. 5 and 6B, Charging ID of the PDP context message 70 and 83**) from said network element (**see FIG. 4, SGSN 12**) so as to be used by the further network element (**see FIG. 4, GGSN 25; see col. 3, line 55-65; see col. 7, lines 43-59; 64-67**) in the other one of the application layer network or the transport layer network (**see FIG. 1, application layer or Transport Layer GPRS network),** to enable charging information for elements to be coordinated (**see col. 7, line 46 to col. 9, line 65**).

Examiner does not believe that U.S.C. 103 (a) requires the secondary reference (i.e. Cobo) must recite "a large part" or "a small part" in order to provide obviousness. Thus, the argument on "non obviousness" since only "small part" of Cobo is utilized, is irrelevant. In fact,

Cobo clearly teaches the argued claimed limitation as set forth above. Even Appellant admits this fact, by reciting Cobo disclosing "a small part" of the claimed invention.

In response to Appellant argument on "a method of providing prepaid subscriber service" is totally irrelevant, since the claimed invention does not include such limitation. Since Cobo clearly discloses the argued claimed invention as set forth above, it would have been obvious to provide the "teaching" of Cobo in the system of Deakin.

In response to appellant's argument, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a call control send and sending charging ID to GGSN node, as taught by Cobo in the system of Deakin, so that it would provide a standardized method of providing a near real time account balance for subscriber's account and stopping the service when the balance reaches to zero; see Cobo col. 2, line 5-14, 15-56; see col. 3, lines 34-39.

In response to appellant's argument that it is not obvious, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981). In this case, examiner is not replacing bodily portions Deakin with Cobo, rather utilizing the "teaching" of Cobo.

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the rejection is based on the combined system of Deakin and Cobo.

VI. Coordinating Charging Identification

Regarding claims 38 and 39, the appellant argued that, "…BCI is not used to coordinate charging information between a transport layer network and an application layer network. The billing method of Deakin occurs entirely within the GSM/GPRS transport layer network" in pages 12-13.

Deakin discloses coordinating charging information in the communications network using said charging identification included in the call records of said first and second network elements (**see FIG. 7, note that the NE1 and NE2 records usage is forwarded to Charging gateway function (see FIG. 1) or a combined system of Billing systems and charging gateway charging gateway (see FIG. 2), the combined charging and billing systems coordinates/associates the billing/charging information by using BCI included in CDR for each NE; see col. 3, line 30-64; see col. 4, lines 14-55**).

In response to transport layer and application layer networks, please see response set forth above in section II and III. Thus, it is clear that the BCI is used to coordinate charging information between transport layer and application layer network.

Cobo also discloses sending said charging identification (see FIG. 4, subsequent create PDP context request 83; see FIG. 5 and 6B, Charging ID of the PDP context message 70 and 83) from said network element (see FIG. 4, SGSN 12) so as to be used by the further network element (see FIG. 4, GGSN 25; see col. 3, line 55-65; see col. 7, lines 43-59; 64-67) in the other one of the application layer network or the transport layer network (see FIG. 1, application layer or Transport Layer GPRS network), to enable charging information for elements to be coordinated (see col. 7, line 46 to col. 9, line 65).

Thus, it is clear tha83t above argued claimed invention is clearly disclosed by the combined system of Deakin and Cobo.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Ian N. Moore/

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